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Swanson, Greg

From: Swanson, Greg
Sent: Friday, January 24, 2003 9:09 AM
To: Wells, Doug; McGill, Preston
Cc: Aggarwal, Pravin
Subject: RE: Stooddy Balls, SRB ET ring, and Fracture Control

Preston and Doug,

As for declaring Stooddy Balls non-fracture critical my assessment is no way. The SSME is sensitive to debris and from the few pictures I have seen there is a real potential to flake off a significant piece. Restate the question to: "Is it possible to implement fracture control for currently installed Stooddy Balls short of replacement?" and we may be able to help with a rationale for replacement of cracked balls and periodic inspection. Next week for a TIM, short fuse then, let's talk this afternoon about what to do. Say 12:00, 4666?

Sounds like SRB isn't asking to change the SRB ET ring fracture critical classification, but they do want help with developing alternate rationale. We are not the MRB or FRR, They should use the MRB system first before coming to us, if the issue can not be resolved there with the membership representing our departments then the FCB could be involved. In the end the flight rationale is owned by the project, but in my opinion projects should involve the appropriate technical experts in developing the rationale. Let's talk about this before you respond to David, say after the Stooddy discussion today?

Greg

-----Original Message-----

From: Wells, Doug
Sent: Thursday, January 23, 2003 4:06 PM
To: Swanson, Greg
Cc: Masterson, Sara; McGill, Preston; Gentz, Steven J
Subject: Stooddy Balls and Fracture Control

Greg -

Paul Munafo would like the MSFC FCB and others as appropriate (Ecord, Hampton, etc.) to discuss the Stooddy ball issue and determine if it is possible to reach the conclusion that the Stooddy Ball itself could be classified non-fracture critical based on the work and studies that have taken place to date. There is an agency wide TIM here at MSFC (4612 1008) next week (Wed/Thurs). Paul would like this FC group to participate in this discussion. The decision at hand is whether to spend the time and resources replacing the balls or can we legitimately continue to fly them as is. A multi-center agreement that the balls are not FC would make that easier in Paul's eye. If the FCB needs to get up to speed before the TIM, we may ask Steve Gentz to convey the latest scoop.

-doug

Greg,

David Martin, SRB chief engineer, asked me to get your opinion on whether or not the MSFC FCB should review the rationale for flight with respect to fracture control for the next ET attach ring. The attach ring is fracture critical and we currently do not meet mission life requirements based on our latest estimate of fracture toughness for the material.

Let me know what you think. I'll be glad to provide more details.

Thanks,

Preston
4-2604